In paragraph two of the Office Action, claims 27-50 were rejected under 35 U.S.C. §103(a) as being unpatentable over Matthews (U.S. Patent No. 5,911,837) in view of Sugihara et al. (U.S. Patent No. 5,705,089) and Stanford et al. (U.S. Patent No. 5,244,000). The Office Action states that Matthews describes a process for removing organic contaminants from semiconductor wafers by contacting liquid comprising water and ozone, wherein the ozone is diffused into the deionized water providing fine bubbles. The Office Action also states that Matthews fails to describe addition of an additive. The Office Action further states that Sugihara et al. disclose a cleaning fluid for semiconductor substrate, in which a phosphonic acid is added as a chelating agent for removing particulate, such as metal impurities from the substrate. Moreover, the Office Action states that Stanford et al. describes that after the substrate is treated for removal of contaminats, carbon dioxide is added to deionized water. The Office Action thereafter concludes that it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine Sugihara and Stanford's teaching into a method for removing contaminants as taught by Matthews.

As an initial matter, Applicants believe that Matthews is directed to different methodology, namely metrology on reactions. Through oxidation, contaminants are removed from the semiconductor wafer. However, there is no mention of any acetic acids or scavengers. In addition, the Sugihara reference is directed to a problem which is entirely different than the problem solved by the current invention. The Sugihara reference is directed to removing metallic impurities. In contrast, the current invention is directed using ozone to remove organic contaminants. Finally, the Stanford reference is directed to using hydrogen peroxide to remove

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contaminants from a substrate, which is an approach that is different from the current claimed invention.

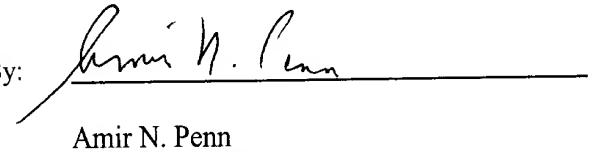
Moreover, there is no teaching, or even suggestion, to combine the Matthew, Sugihara and Stanford references. In fact, the Matthews reference discourages the use of additives such as acetic acids or scavengers thereby teaching away from combining with Sugihara or Stanford. In particular, the Matthews reference states that the "present invention eliminates the need to use hazardous chemicals in the removal of organic materials . . . ." Col. 6, lines 10-13. In contrast, the present invention claims "an additive acting as a scavenger". *See* claim 27 and 49. Thus, the invention, as claimed, is not rendered obvious by the cited references.

If for any reason, the application is not considered to be in condition for allowance on the next Office Action and an interview would be helpful to resolve any remaining issues, the Examiner is requested to contact the undersigned attorney at (312) 913-0001.

Respectfully submitted,

McDonnell Boehnen Hulbert & Berghoff

Dated: November 19, 1999

By: 

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